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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/537,501	03/29/2000	Olli Talvitie	460-009334-US(PAR)	6906

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EXAMINER

LE, DANH C

ART UNIT

PAPER NUMBER

2683

DATE MAILED: 09/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

GA

Office Action Summary

Application No.

09/537,501

Applicant(s)

TALVITIE ET AL.

Examiner

DANH C LE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,5,8,9,12,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,5,8,9,12,14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 2, 5, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sroka (US 5,778,308) in view of Leyten (US 5,991,608).

As to claim 2, Sroka teaches the system for matching an antenna (figure 3A,) for a wireless communication device, characterized in that it comprises:

detecting means (34, 36) to detect the matching of the antenna by measuring the radio power reflected from the antenna and means to generate a matching signal on the basis of the measurement on the reflected radio power,

control means (32) to examine said matching signal, to determine the need for matching, and to generate a control signal on the basis of said matching signal, and

antenna matching means (31) to adjust the matching of the antenna on the basis of said control signal (col.4, line 34-col.5, line 3).

Sroka fails to teach the distance measurement. Leyten teaches the distance measurement (col.3, lines 36-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Leyten into the system of Sroka in order to provide a portable communication device which has acceptable performance, when a disturbing object is in the vicinity of such a disturbing object and in free space condition.

As to claim 5, the combine of Sroka and Leyten teaches the wireless communication device (figure 1, 15) comprising at least an antenna (figure 1, 17), characterized in that the wireless communication device also comprises:

detecting means (figure 3A, 34, 36) to detect the matching of the antenna by measuring the radio power reflected from the antenna and means to generate a matching signal on the basis of the measurement on the reflected radio power,

control means (figure 3A, 32) to examine said matching signal, to determine the need for matching, and to generate a control signal on the basis of said matching signal, and antenna matching means (figure 3A, 31) to adjust the matching of the antenna on the basis of said control signal.

Sroka fails to teach the distance measurement. Leyten teaches the distance measurement (col.3, lines 36-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Leyten into the system of Sroka in order to provide a portable communication device which has acceptable performance, when a disturbing object is in the vicinity of such a disturbing object and in free space condition.

As to claim 12, the claim is a method of claim 2; therefore, the claim is interpreted and rejected as set forth in the claim 2.

2. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sroka and Leyten in view of Terk (US 5,812,066).

As to claim 8, the combine of Sroka and Leyten fails to teach the means to measure the distance comprises an infrared transmitter and receiver. Terk teaches

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wireless communication device according to claim 7, characterized in that said means to measure a distance comprise an infrared transmitter (col.13, lines 21-41) and an infrared receiver (col.12, line 43-col.13, line 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Terk into the system of Sroka and Leyten in order to provide enhanced system performance of the portable radio apparatus having adaptive antenna matching.

3. Claims 9, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sroka and Leyten in view of Tamura (US 5,335,638).

As to claim 9, Sroka and Leyten teaches the wireless communication device according to claim 5. Sroka and Leyten fails to teach the antenna is arranged to be placed in at least two different positions, characterized in that said detecting means comprise means to examine the position of the antenna and means to generate the matching signal on the basis of the position of the antenna. Tamura teaches the antenna (20) is arranged to be placed in at least two different positions, characterized in that said detecting means comprise means to examine the position of the antenna (20) and means to generate the matching signal on the basis of the position of the antenna (col.3, line 14-col.4, line 40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Tamura into the system of Sroka in order to provide enhanced system performance of the portable radio apparatus having adaptive antenna matching.

As to claim 14, the limitation of the claim is the same the limitation of claim 9; therefore, the claim is interpreted and rejected as set forth in the claim 9.

As to claim 15, Tamura further teaches the wireless communication device comprising at least a keypad cover (10) arranged to be placed in at least two different positions, characterized in that said detecting means comprise means to examine the position of the keypad cover (10) and means to generate the matching signal on the basis of the position of the keypad cover (40).

Response to Arguments

Applicant's arguments with respect to claims 2, 5, 8, 9, 12, 14, 15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C LE whose telephone number is 703-306-0542. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

A handwritten signature in black ink, appearing to read 'danh', is written over a horizontal line.

Danh C.Le

A handwritten signature in black ink, appearing to read 'W. Trost', is written over a horizontal line.

WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600